

What is claimed is:

1 1. A cleaning apparatus to clean alien substance from a substrate  
2 provided with a mask pattern prior to wet etching, the apparatus  
3 comprising:

4 an ultraviolet cleaner; and

5 a conveyer conveying the substrate to and from the ultraviolet cleaner.

1 2. The apparatus according to claim 1, wherein the conveyer includes:  
2 a first conveyer conveying the substrate from a loader to the  
3 ultraviolet cleaner; and

4 a second conveyer conveying the substrate from the ultraviolet cleaner  
5 to a wet etching unit.

1 3. The apparatus according to claim 1, wherein the ultraviolet cleaner  
2 uses excimer ultraviolet light.

1 4. The apparatus according to claim 1, wherein the substrate includes  
2 at least one of a gate electrode, a source electrode, a drain electrode, a pixel  
3 electrode, and a protective layer.

1 5. The apparatus according to claim 1, wherein the substrate includes  
2 at least one of a black matrix and a common electrode.

1 6. A wet etching apparatus to clean alien substances from a substrate  
2 with a mask pattern prior to wet etching, the apparatus comprising:

3 an ultraviolet cleaner cleaning the alien substances from the  
4 substrate;

5 a conveyer conveying the substrate to and from the ultraviolet cleaner;

6 a loader loading the substrate to and from the ultraviolet cleaner; and

7 an etching unit etching the substrate that is free of the alien  
8 substances, the conveyer conveying the substrate from the ultraviolet  
9 cleaner into the etching unit.

1           7. The apparatus according to claim 6, wherein the conveyer includes:  
2           a first conveyer conveying the substrate from the loader to the  
3           ultraviolet cleaner; and  
4           a second conveyer conveying the substrate from the ultraviolet cleaner  
5           to the etching unit.

1           8. The apparatus according to claim 6, wherein the ultraviolet cleaner  
2           is installed at a predetermined area in the loader on the substrate having a  
3           plurality of cassettes.

1           9. The apparatus according to claim 6, wherein the conveyer is  
2           installed at a predetermined area between the ultraviolet cleaner and the  
3           etching unit in the loader.

1           10. The apparatus according to claim 6, wherein the substrate  
2           includes at least one of a gate electrode, a source electrode, a drain  
3           electrode, a pixel electrode, and a protective layer.

1           11. The apparatus according to claim 6, wherein the substrate  
2           includes at least one of a black matrix and a common electrode.

1           12. The apparatus according to claim 6, further comprising:  
2           a tilt drain part flowing an etchant on the substrate;  
3           a de-ionized rinse part eliminating the etchant on the substrate; and  
4           a spin drier drying a de-ionized water.

1           13. A method to clean alien substances from a substrate with a  
2           photoresist mask pattern, the method comprising:  
3           forming the photoresist mask pattern on the substrate;  
4           conveying the substrate to a clean device;  
5           exposing the substrate to an ultraviolet light to remove the alien  
6           substances; and

conveying the substrate from the cleaning device to an etching station.

14. The method according to claim 13, wherein the ultraviolet light includes eximer ultraviolet light.

15. A method for wet etching comprising:  
cleaning a substrate having an alien substances from an ultraviolet cleaner;  
conveying the substrate to and from the ultraviolet cleaner;  
loading the substrate to a loader; and  
etching the substrate in an etching unit.

16. The apparatus according to claim 15, wherein the substrate includes at least one of a gate electrode, a source electrode, a drain electrode, a pixel electrode, and a protective layer.

17. The apparatus according to claim 15, wherein the substrate includes at least one of a black matrix and a common electrode.

18. The apparatus according to claim 15, further comprising:  
flowing an etchant on the substrate in a tilt drain part;  
eliminating the etchant on the substrate in a de-ionized rinse part having a de-ionized water; and  
drying the de-ionized water in a spin drier.